

(12) United States Patent Jones et al.

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(54) AUTONOMOUS FLOOR-CLEANING ROBOT

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Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35 U.S.C. 154(b) by 25 days.

Appl. No.: 12/201,554

Filed: (22)Aug. 29, 2008

(65)**Prior Publication Data**

> US 2008/0307590 A1 Dec. 18, 2008

Related U.S. Application Data

- (63) Continuation of application No. 10/818,073, filed on Apr. 5, 2004, now Pat. No. 7,571,511, which is a continuation of application No. 10/320,729, filed on Dec. 16, 2002, now Pat. No. 6,883,201.
- Provisional application No. 60/345,764, filed on Jan. (60)3, 2002.
- (51) Int. Cl. A47L 5/00

(2006.01)

U.S. Cl.

USPC 15/319; 15/360

(58) Field of Classification Search USPC . 15/319, 339, 52.1, 340.1, 356, 360; 700/245 See application file for complete search history.

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(45) Date of Patent:

Jul. 2, 2013

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(57)ABSTRACT

A floor cleaning robot comprises a housing, wheels, and a motor driving the wheels to move the robot across a floor, a control module disposed within the housing and directing movement of the robot across the floor, a sensor for detecting and communicating obstacle information to the control module so that the control module can cause the robot to react to the obstacle, a removable bin disposed at least partially within the housing and receiving particulates, a first rotating member directing particulates toward the bin, and a second rotating member cooperating with the first rotating member to direct particulates toward the bin. The removable bin receives particulates directed thereto by the first and second rotating members and the particulates pass from the first rotating member to the removable bin without passing through a filter.

20 Claims, 13 Drawing Sheets

